CLAIMS

Reduced Manufacturing Cost of Gypsum Board

I claim:

1. Manufacturing cost of gypsum board can be reduced by using different formulations for core gypsum slurry (relatively low density) and coatings/edges gypsum slurry (relatively high density) by:
    a. Reducing starch and water to the low density gypsum slurry used for the board core.
    b. Adding starch (dry or liquid) and water to the high density gypsum slurry used for coatings and edges of the board.
    c. Total water added to form the two different formulations of slurries will be less than presenting used by existing methods and techniques.
    d. Energy cost to remove water from gypsum board in the manufacturing process will be reduced as a result of less total water being added in the manufacturing process.

2. The method of producing relatively high density gypsum slurry for the board coatings and edges by:
    a. NOT adding foam

    OR

    b. in chemically or mechanically breaking down foam added to this slurry

    Is not critical to this invention, only that two gypsum slurries are used to produce the gypsum board. One for the core of the board and the second for the paper sheets coatings and edges of the board.

3. The amount of water removed from the core gypsum slurry (relatively low density) will be dependent on:
    a. Characteristics of each specific gypsum and stucco used in the gypsum board manufacturing.
    b. General arrangement and speed of each specific gypsum board manufacturing process.

4. The amount of water added to the coatings/edges gypsum slurry (relatively high density) will dependent on:
    a. Characteristics of each specific gypsum and stucco used in the gypsum board manufacturing.
    b. General arrangement and speed of each specific gypsum board manufacturing process.
    c. Coatings and edges equipment used.